



## **Central Plains**

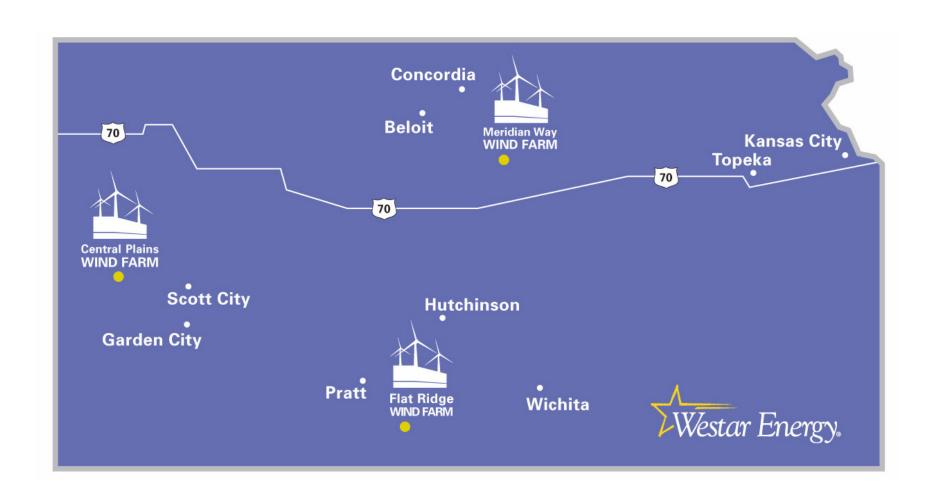
**Mark Mayworm – Westar Energy** 







# Wind Portfolio

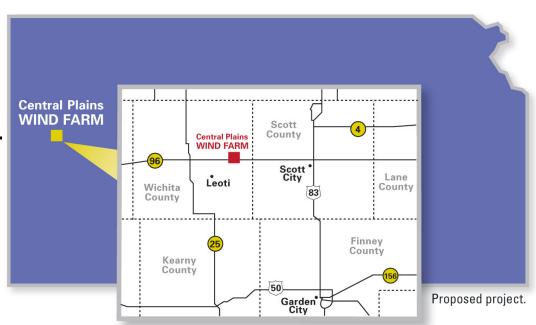






#### **Central Plains Wind Farm**

- Location: 6,000 acres in Wichita County between Leoti & Scott City
- Structure: Westar Ownership of 99 MW
- Developer: RES America Development Inc.
- Annual Generation: Over 310,000 MWh's
- In Service: April 2009
- Turbine type: Vestas 3MW
- Turbine Hub Height: 262 ft.
- Rotor Diameter: 295 ft.







# **Community Impact**

- 5 Vestas technicians Local residents of Wichita and Scott County
- 1 Westar employee Local resident
- All live within 12 miles of the site
- All techs receive extensive mechanical, electrical, and safety training for turbine work
- Three service vehicles are tagged in the county





# **Community Impact**

- Employee community involvement include
  - Volunteer Fire Departments, Volunteer Deputy Sheriff, Volunteer work with both Wichita and Scott County Fair board, Local Schools, and Churches
- Local contractors
  - Mowing and spraying services \$10,000 annually
  - Road maintenance \$1300 to \$2200 per call out
- Local businesses are used for parts and supplies whenever possible





## Operation and Maintenance

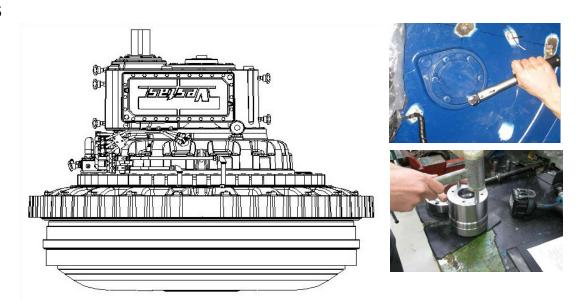
- ■Total annual O&M Over \$4 million
  - Royalty payments Over \$500K annually
  - Payment in lieu of taxes (PILOT) Over \$250K annually





#### **V90 Maintenance Issues**

- Gearbox Pin rotating shedding metal debris throughout the gearbox
- Central Plains became a Global Priority Site to complete the pin repair (little run time/no damage developed)
  - Increased resources
  - Expedited the repair







### Renewable Energy Legislation

- Renewable Energy Standards Act of Kansas signed into law in May 2009
  - Requires increasing amount of net renewable generating capacity based upon utility's 3-year average peak demand
    - 10% by 2011; 15% by 2016; 20% by 2020
  - ~160 MW of additional renewables will be required for Westar to meet the Kansas Renewable Energy Standards Act of 10% of <u>peak demand</u> by 2011
- A proposed senate ENR bill would require 15% renewables by 2021, based on energy, requiring Westar to have a total of ~975 MW
- Future legislation (waxman-markey) may drive different requirements





#### 2009 Renewable RFP

- Issued RFP for up to 500MW in March 2009
  - 35 responses
- Decision process continues to be challenging
  - State RES requires action by end of 2011
  - Transmission constraints are significant limiting factor
    - Major transmission relief not expected until 2013 or later
  - Ripple effects of world economic crisis have caused prices of project to increase versus our previous wind projects





# Questions?